



NEXTuino RISE

Industrial Programmable Logic Controller

- 8 Digital Inputs (4 a/d + 2 fix d + 2 fix a)
- 8 Digital Outputs · 6 Relay Outputs
- USB-B · Pin header (22 logic-level I/Os)
- DIN-rail 36x90x60 mm · 145 g

PARAMETER	COND.	VALUE / SPECIFICATION
GENERAL		
Standard		EN61010-1 / EN61010-2-201 / EN61131-2
Dimensions (W × H × D)		36x90x60mm / Weight / 145g / Mounting
Top hat rail EN50022, 35mm		
ENVIRONMENTAL CONDITIONS		
Operating ambient temperature		0°C – 55°C
Relative humidity – non-condensing		80 % for temp. up to 31 °C,
decreasing linearly to 50 %		
relative humidity at 55 °C		Pollution Degree / PD2 / Altitude
up to 2000m AMSL		
Vibration (5 f 9 Hz)		1,75 mm amplitude sinus / 3,5 mm amplitude random
Vibration (9 f 150 Hz)		0,5 g acceleration sinus / 1,0 g acceleration random
Transport and Storage		-20°C – +70°C / 10 to 90% no condensation
Altitude 3000m AMSL		Shock response / 15g, 11ms half sinus all 3 axes
I/O		
Supply voltage		12V or 24V
USB (Power for programming only)		USB-B, 2.0
Inputs, no galvanic insulation		8
Common analog/digital		4 / Fixed digital / 2 / Fixed analog / 2
Digital Outputs, no galvanic insulation		8
Relay Outputs (parallel to Digital, galvanic ins.)		6
PIN Header, no Galvanic insulation		Logic level I/Os / 22, partially parallel to terminal I/Os
Analog 0-5V Inputs		5 / Communication
SPI (switchable), UART, Reset		Internal Power / +3,3V, +5V, GND
TERMINAL CAPACITIES		
Relay Output, Power Input		2,5mm ² (24-12AWG) / Strip length / 6-7mm
Max. tightening torque		0,5Nm
		1,5mm ² (30-16AWG) / Strip length / 5-6mm
		0,2Nm
		26 Pin, Dual row, 2.54 pitch

PARAMETER	COND.	VALUE / SPECIFICATION
PROTECTION (cont.)		
ESD HBM Class 0		
Contact discharge: ±4kV		Air discharge: ±8kV
Supply input over current protection		Internal Fuse 8A / Relay Output / External Fuse required / Digital Output
Overload, short circuit, ESD		Signal Input
Overvoltage, ESD		
Pin header connector		ESD
Current +5V, +3,3V		
total 200mA, resettable fuse		
ELECTRICAL CHARACTERISTICS		
Supply voltage	12V range	10,2V – 15,0V
	24V range	20,4V – 30,0V
Signal input low level	12V range	0V – 3,6V
	24V range	0V – 7,2V
Signal input high level	12V range	9V – 13,2V
	24V range	18V – 26,4V
Analog signal input	12V range	0 – 13,2V
	24V range	0 – 26,4V
Signal input current	max. current	< 3mA
Logic "0" level	@ pin header	0V – 1,5V
Logic "1" level	@ pin header	3V – 5,5V
Signal output low level	12V range	0V – 2,4V
	24V range	0V – 4,8V
Signal output high level	V _{in} – 10%	Signal output – PWM functionality
	Duty cycle	5% – 95%
Relay output, Contact rating	Resistive	6A 250V AC /
	Load	30V DC
Common Relay terminal	max. current	6A
Galvanic insulation	coil to contact	3000VAC 1min
Relay ON in case of PWM functionality	Duty cycle	> 30%
LED SIGNALIZATION		
Power LEDs coding		Color of power LED
only USB powered		12V green, 24V green
input voltage out of range		12V orange, 24V orange
input voltage 10.2V – 15,0V		12V green, 24V orange

PHYSICAL DIMENSIONS

